

Patent Claims:

1. A metal pigment for a cosmetic preparation, such as lipstick, nail polish, eye shadow, hair colorant, liquid mascara, powder, eyeliner, rouge,
5 skin/hair care products, perfume, eau de toilette, lotions or the like, **characterized in that** a metallic substrate has a substrate-enclosing layer produced by the sol-gel process, which provides a barrier effect against sweat and saliva and prevents direct contact between skin and metallic substrate.
- 10 2. A metal pigment according to claim 1, **characterized in that** the layer is compatible with a binding agent or carrier of the cosmetic preparation.
3. A metal pigment according to claim 1 or 2, **characterized in that** the layer contains inorganic material or consists of it.
15 4. A pigment according to any of claims 1 through 3, **characterized in that** the inorganic material is selected from the group consisting of silicon oxide, titanium oxide, aluminum oxide, iron oxide, cerioxide and chromium oxide or corresponding hydrates as well as mixtures thereof.
- 20 5. A pigment according to any of claims 1 through 3, **characterized in that** the layer contains organic material or consists of it.
6. A pigment according to any of claims 1 through 3 or 5, **characterized in that** the organic material contains polyacrylates, silicones, polyolefins, polystyrol, polyesters, cellulose esters, polyamides, phosphor-organic substances, organically modified silanes, organically modified titanates, organically modified zirconates, as well as mixtures thereof.
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7. A pigment according to any of claims 1 through 6, **characterized in that** the layer thickness of the encapsulation is 5 to 500 nm.
8. A pigment according to any of claims 1 through 7, **characterized in**
5 **that** the metallic core consists of copper, zinc, aluminum, titanium, silver or gold or alloys of said elements.
9. A pigment containing aluminum according to any of claims 1 through 8, **characterized in that** the metallic core consists of aluminum, 100% of the
10 grain size is < 75 μm and 95% is < 45 μm and the content of mercury is <= 1 ppm, of arsenic <= 3 ppm, of lead <= 20 ppm, and the Al content is >= 99%.
10. A pigment according to any of claims 1 through 8, **characterized in**
15 **that** the metallic core consists of aluminum, the content of mercury is <= 1ppm, of arsenic <= 3ppm, of lead <= 10 ppm, of cadmium <= 1ppm, of heavy metals (as lead) <= 40 ppm, the drying loss at 105°C is <= 0.5%, and the Al content is >= 99%.
- 20 11. A pigment according to any of claims 1 through 8 in the form of a bronze pigment, **characterized in that** the metallic core contains a content of copper of 70 to 95%, a content of zinc <= 30% and a content of aluminum and tin of <= 0.5% in each case, and the content of cadmium is <= 15 ppm, of lead <= 20 ppm, of arsenic <= 3 ppm and of mercury <= 1 ppm,
25 and 95% of the grain size is < 45 μm .
12. A pigment according to any of claims 1 through 8 in the form of a copper pigment, **characterized in that** the metallic core has a content of

copper $\geq 95\%$ and the content of cadmium is $\leq 15 \text{ ppm}$, of lead $\leq 20 \text{ ppm}$, of arsenic $\leq 3 \text{ ppm}$ and of mercury $\leq 1 \text{ ppm}$, and 95% of the grain size is $< 45 \mu\text{m}$.

- 5 13. A pigment according to any of claims 1 through 8, **characterized in that** the metallic core consists of silver, the content of mercury is $\leq 1 \text{ ppm}$, of arsenic $\leq 5 \text{ ppm}$, of lead $\leq 10 \text{ ppm}$, and the content of silver is $\geq 99.9\%$.
- 10 14. A pigment according to any of claims 1 through 8, **characterized in that** the metallic core consists of silver and the content of silver is $\geq 99.5\%$.
- 15 15. A pigment according to any of claims 1 through 8, **characterized in that** the metallic core consists of gold, the content of silver is $\leq 7\%$, of copper $\leq 4\%$, and the content of gold is $\geq 90\%$.
- 20 16. A pigment according to any of claims 1 through 5, **characterized in that** the pigment is provided with a coating, wherein the weight ratio of coating to metallic core is between 1 and 0.001.
- 25 17. A pigment according to any of claims 1 through 16, **characterized in that** the metallic substrate is a metal pigment produced through grinding with lubricants of plant origin.
18. A pigment according to any of claims 1 through 17, **characterized in that** the metallic core is formed flake-like with a diameter of 1 to $100 \mu\text{m}$ and a mean thickness of 0.05 to $2 \mu\text{m}$.

19. A method for producing a pigment according to any of the above claims, **characterized in that** the metallic substrate particles are coated without additional pretreatment in a sol-gel process in alcoholic-aqueous solution through hydrolysis and vapor depositing of organic metal oxide pre-stages and optionally with the use of suitable catalysts.
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20. A cosmetic preparation containing a pigment according to any of claims 1 through 8.